

Application No.: 10/697768

Case No.: 58585US002

**Amendments to the Specification:**

Please amend the specification as follows:

On page 2, please replace the paragraph that starts on line 15 with the word "U.S." and ends on line 26 with the word "disclosed" with the following amended paragraph:

U.S. Patent No. 5,804,650 purportedly discloses preparation of a vinylidene fluoride (VdF) copolymer by emulsion-polymerizing VdF monomer with a reactive emulsifying agent. The resulting polymer latices are used suitably, for example, for paints. The reference teaches that the reactive emulsifying agent is present in an amount of 0.001 to 0.1% by mole in the combination of monomers ('650, col. 8, lines 58-60, and col. 17, lines 54-56). The reference also teaches that the reactive emulsifying agent is present in an amount of ~~0.0001-10%~~ 0.0001 to 10% by weight relative to the weight of water in the emulsion ('650, col. 4, line 52, and col. 13, lines 10-17) and teaches against the addition of reactive emulsifying agent in any amount greater than 10% by weight relative to the weight of water in the emulsion. ('650, col. 22, lines 12-15) In Comparative Example 6, a tetrafluoroethylene (TFE) copolymerization is disclosed.

Please replace the paragraph that starts on page 5, line 29 with the word "For" and ends on page 6, line 6 with the word "like" with the following amended paragraph:

For the preparation of a stable pre-emulsion of I in water, the SO<sub>2</sub>F-comonomer is thoroughly mixed together with water and a base. The weight ratio of water to the SO<sub>2</sub>F-comonomer is in the range of 0.1:1 to 1:0.01 and typically between 0.2:1 and 1:0.1. Any suitable base may be used, including alkaline hydroxides such as NaOH, KOH, and LiOH, earth alkaline hydroxides, hydroxides of Group III metals, or NH<sub>4</sub>OH. Additional inorganic basic salts like carbonates may be used. Quaternary alkyl ammonium hydroxides may be used but their utility may be limited due to their chain transfer activities, especially the larger chain alkyl compounds ( $R_4N^+OH$ ) ( $R_4N^+OH^-$ ). Typically, hydroxides of Group I metals or NH<sub>4</sub>OH are used, most typically LiOH or NH<sub>4</sub>OH. The base is added to the pre-emulsion in an amount equal to 0.001 –

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0.9 molar equivalents relative to the fluoromonomer according to formula I, typically 0.01 – 0.5 molar equivalents and more typically 0.02 – 0.3 molar equivalents. The pre-emulsion should be stable and should result in the formation of a polymer with desirable properties such as melt processability, and the like.